



## **Pittwater Natural Heritage Association Submission on the Draft Plan of Management for North Narrabeen Reserve**

Pittwater Natural Heritage Association (PNHA) would like to make the following comments on the draft North Narrabeen Reserve Plan of Management.

Firstly, we note in the report to Northern Beaches Council meeting on 26 March 2024 that, according to Council's research, the community, among other attributes related to sports fields, generally values "environmentally sympathetic development and management" and "additional tree plantings and new and upgraded landscaping." PNHA shares the community view of these objectives which we believe are consistent with the character of our area.

Our comments focus on two aspects of the Plan of management: additional tree plantings, and the proposal to instal synthetic surfaces (synthetic turf) on playing fields.

### **1. Additional tree plantings**

Tree canopy is a major and much valued feature of the Northern Beaches area. However, it is constantly being lost as our urban residential areas become more densely developed. So PNHA commends any actions which increases native tree canopy and understory in our local government area.

The sports fields in North Narrabeen Reserve are bordered by a significant amount of land categorised as park (Figure 8 on p 58 of the POM). We commend the proposed actions to achieve the environment and sustainability objectives (POM p 71), including more trees along the Walsh St boundary. We hope Council's commitment to use of local native trees and understory plants will be in evidence here, as native plants are critical to the preservation of habitat corridors for native species. For the same reason, we believe that there should be a greater density of native trees and understory plants in the area identified as Section 23.

### **2. Proposal to install a synthetic surface on sports fields within the reserve**

We object to the use of synthetic turf on playing fields in North Narrabeen Reserve for reasons listed below. We note that field 2 is considered by Council staff to be in good condition and given the environmental dangers associated with synthetic turf submit that the existing natural turf field be retained.

### **2.1 Limited life and maintenance requirements of synthetic turf**

Synthetic turf is not a permanent solution. It has a limited lifespan as it wears out from abrasion during use and UV radiation from the sun. Breakdown of the plastic blades produces tiny fragments of microplastics - it has been estimated that a synthetic turf field loses up to 8% of its plastic blades annually, depending on how it is used.

Disposal and replacement costs are significant and synthetic turf is not maintenance free. For optimum performance it requires regular cleaning and top-up of infill. This will be an ongoing cost to Northern Beaches Council

### **2.2 Pollution caused by microplastics from synthetic turf**

The United Nations Development Program website states: *“Microplastics, tiny particles of plastic less than 5 millimetres in size, have infiltrated our oceans, soil, and even the air we breathe. With their omnipresence, microplastics have become a matter of growing concern for the environment and human health.*

In the marine environment microplastics are ingested by marine life, causing adverse effects on their health. Experiments have shown that microplastics can have toxic effects on human health.

AUSMAP, an Australian academic and citizen science program has conducted research into microplastic pollution in Australia. In 2023 they reported that *“up to 70,000 particles of rubber crumb and over 50,000 particles of synthetic grass have been captured in a single trap sample.”* This amount of microplastics had migrated from one synthetic turf field.

AUSMAP is especially alarmed at the use of rubber crumb used as infill in synthetic turf. This material is known to contain a number of toxic chemicals, and like the fragments of plastic grass blades, degrades into microplastics which enter the environment.

AUSMAP is sufficiently concerned to have recommended that the NSW Government impose a five-year moratorium on new planning and approvals for synthetic grass fields.

Should a synthetic turf field be installed in North Narrabeen Reserve, microplastics caused by abrasion and UV degradation will enter local drains and flow into Narrabeen Lagoon, adding to its pollution load and reducing its water quality.

### **2.3 End of life issues**

Direction 5 of Council’s waste and Circular Economy Strategy is *“**Council lead the way** - council cut waste it generates by 10 per cent by 2030 and improve local planning controls by 2026 so that private and public buildings and infrastructure are designed for “longevity”. The need for raw materials would thus be reduced and guidelines would also promote future disassembly, reuse and recycling.”* Use of synthetic turf on council’s playing fields is inconsistent with this strategy.

In spite of many claims that synthetic turf is recyclable, there are extremely limited avenues for this in Australia and even if it is able to be recycled costs of removal and transportation need to be taken into account. And if Council is unable to recycle its synthetic turf it becomes just another waste product in Kimbriki tip

## **2.4 Resilience to natural hazards and climate change**

One of the environmental goals in Northern Beaches Council's Community Strategic Plan is: *"Our environment is resilient to natural hazards and climate change."* PNHA believes that a synthetic surface be unsuitable for this location due to risks associated with climate change.

As global warming is making extreme rainfall events worse and increasing the risk of severe flooding we suggest that it would be prudent to maintain the grass surface that can cope with water ponding and flooding rather than install a synthetic surface that could be ruined by the effect of a severe rain event.

Natural grass doesn't have the carbon footprint of synthetic turf, is cooler to play on in hot weather and is better for maintaining soil health. New techniques of laying and maintaining natural grass make it much more able to cope with the wear that sports fields undergo.

Finally, many countries overseas that have been using synthetic turf for many years are becoming concerned about its ongoing use. The Netherlands will phase out synthetic turf from 2030 and revert to use of natural grass for sports fields.

In NSW there are standards in place for most other materials for public use but this essential consideration has been neglected in respect of synthetic turf. We believe that it is wrong to destroy a natural, biodegradable grass surface and replace it with a plastic surface which has a limited life, is known to pollute as it wears and has end of life problems including the difficulty and cost of disposal and recycling.

David Palmer  
Secretary, PNHA  
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